



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,379	09/17/2003	David M. Skinlo	Q137-US10	8949
31815 7590 03/07/2007 MARY ELIZABETH BUSH QUALLION LLC P.O. BOX 923127 SYLMAR, CA 91392-3127			EXAMINER YUAN, DAH WEI D	
			ART UNIT	PAPER NUMBER
			1745	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/666,379

Applicant(s)

SKINLO, DAVID M.

Examiner

Dah-Wei D. Yuan

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 66-91 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 66-75, 88, 89 and 91 is/are rejected.
- 7) ☒ Claim(s) 76-87 and 90 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Attachment(s) 3. Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date
:09172003,03012004,05112004,07092004.

ELECTRIC STORAGE BATTERY CONSTRUCTION
AND METHOD OF MANUFACTURE

Examiner: Yuan

S.N. 10/666,379

Art Unit: 1745

March 2, 2007

Election/Restrictions

1. Applicant's election without traverse of Group I-7, claims 60-65, in Paper filed December 20, 2006 is acknowledged. Claims 1-65 were canceled and claims 66-91 were added.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 66-75,88,91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teramoto et al. (US 5,501,916) in view of Kitoh et al. (US 6,399,242 B2).

With respect to claim 66,68,71,74,75,91, Teramoto et al. disclose a method of forming a lithium battery comprising arranging the positive electrode in electrical communication with a winding core (48) (pin), insulating the negative electrode from the core, spirally winding the electrode around the core, transporting the electrolyte through the opening of the battery case and sealing the opening with the battery lid (47). See Example 2 and Figure 9. However, Teramoto et al. do not teach the use of tab to provide electrical communication between the battery lid and the negative electrode. Kitoh et al. teach a lithium battery comprising a battery case, a first battery lid (16), a second battery lid (17), wherein flexible conductive tabs are disposed past a

center point of the second battery lid and are electrically connected to the second battery lid. As a result, the internal resistance is reduced and current extraction from the internal electrode become easier. See Figure 4; Column 5, Lines 20-43. Therefore, it would have been obvious to one of ordinary skill in the art to use flexible conductive tabs to electrically connect the negative electrode to the second battery lid in the battery of Teramoto et al., because Kitoh et al. teach such electrical connection can reduce internal resistance and facilitate current extraction from the electrode.

With respect to claim 67, Kitoh et al. teach the battery lid is essentially perpendicular to the opening of the battery case. See Figure 4.

With respect to claims 69,70,72,73, Kitoh et al. do not teach the tab connected to the second battery lid continuously over a distance extending from the first location to the second location. Also, the distance of connection is shorter than the radius of the second battery lid. See Figure 4.

With respect to claim 88, Teramoto et al. teach the positive electrode is in electrical commutation with the terminal core via a weld (52). See Example 2.

4. Claim 89 is rejected under 35 U.S.C. 103(a) as being unpatentable over Teramoto et al. (US 5,501,916) and Kitoh et al. (US 6,399,242 B2) as applied to claims 43-45,66-69,83,86 above, and further in view of Cogan (US 5,755,759).

Teramoto et al. and Kitoh et al. teach a method of forming a lithium battery as described above in Paragraph 3. However, Teramoto et al. and Kitoh et al. do not disclose the use of PtIr

alloy as the pin. Cogan teaches a biomedical device wherein the wire electrode is made of PtIr alloy because it can record or stimulate physiological function. See Column 3, Lines 43-56. Therefore, it would have been obvious to one of ordinary skill in the art to use PtIr alloy as the pin onto the battery of Teramoto and Kitoh, because Conga teaches the alloy can be used in implantable medical device.

Allowable Subject Matter

5. Claims 76-87,90 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 76-87 would be allowable because the prior art does not disclose or suggest a mandrel mounted on the pin such that the electrodes are wound around the pin and the mandrel. Claim 90 would be allowable because the prior art does not disclose or suggest the assembly further comprising a first end cap including an electrical insulator, the pin extending through the electrical insulator and the pin is hermetically sealed to the electrical insulator.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dah-Wei D. Yuan whose telephone number is (571) 272-1295. The examiner can normally be reached on Monday-Friday (8:00-5:00).

Art Unit: 1745

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dah-Wei D. Yuan
March 2, 2007



DAH-WEI YUAN
PRIMARY EXAMINER